L1 ANSWER 198 OF 301 CA COPYRIGHT 2006 ACS on STN
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TI High-strength cement composition
IN Sakai, Etsuro; Shibayama, Yukio
PA Denki Kagaku Kogyo K. K., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C04B028-02
ICI C04B028-02, C04B022-06, C04B024-22
CC 58-3 (Cement, Concrete, and Related Building Materials)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 61178462	A2	19860811	JP 1985-19292	19850205
PRAI JP 1985-19292		19850205		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 61178462	ICM	C04B028-02
	ICI	C04B028-02, C04B022-06, C04B024-22
	IPCI	C04B0028-02 [ICM,4]; C04B0028-02 [ICI,4]; C04B0022-06 [ICI,4]; C04B0024-22 [ICI,4]

AB In a high-strength cement composition containing cement, ultrafine powder, high-performance water-reducing agent, and water, crushed opal-based siliceous rock, blast-furnace slag, or fly ash is used as the ultrafine powder and this reduces the shrinkage during its hardening. Thus, a test piece manufactured from a raw mix containing cement 80, **fly ash** (mean **particle size** 3.04μ) 20, sand 120, high-performance water-reducing agent 2, and water ≥1 weight parts had compressive strength 1423 kg/cm2 and hardening shrinkage 1.4%.
ST fly ash mortar hardening shrinkage; blast furnace slag mortar hardening shrinkage; silica powder mortar hardening shrinkage
IT Ashes (residues)
(coal fly, mortar from cement and, with low hardening shrinkage)
IT Mortar
(from cement with fly ash or siliceous rock or blast-furnace slag, with low hardening shrinkage)
IT Slags
(blast-furnace, mortar from cement and, with low hardening shrinkage)
IT 7631-86-9, Silica, uses and miscellaneous
RL: USES (Uses)
(powder, mortar from cement and, with low hardening shrinkage)

- cement
- Fly ash (3.04 μm mean particle size)
- water reducing agt
- water